



PATENT ABSTRACTS OF JAPAN

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G02F 1/13363**G02B 5/30****G02F 1/1335****G02F 1/139**(21) Application number: **2000158174**(22) Date of filing: **29.05.00**(30) Priority: **28.05.99 KR 99 9919456**(71) Applicant: **SAMSUNG ELECTRONICS CO LTD**(72) Inventor: **CHO RYUKEI**(54) **LIQUID CRYSTAL DISPLAY DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a liquid crystal display device which can prevent such phenomenon that the wavelength dispersion characteristics intrinsic to the optical structure constituting the panel causes decrease in the brightness of the screen of the liquid crystal display device and causes decrease in the contrast ratio, and which has decreased dispersion characteristics for visible rays in a wide band.

SOLUTION: The liquid crystal display device is equipped with at least a polarizing plate 37 and two phase retardation films 31, 33 on one substrate. The phase retardation films 31, 32 are disposed between the polarizing plate 37 and the substrate, and the values of $\Delta n d$ of the films are $1/2$ wavelength and $1/4$ wavelength, respectively, for visible rays at a specified wavelength in a normal state. The angles θ_1 , θ_2 formed between the respective major axes of the phase difference plates and the transmission axis of the polarizing plate 37 are in such relation that θ_2 is defined by $\theta_2 = 2 \times \theta_1 + 45^\circ$ or $2 \times \theta_1 - 45^\circ$, and

that θ_2 is the minimum when θ_1 is varied.

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